



#41A
1-22-02
lls

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: T. Yamaguchi et al. Attorney Docket No.: NAI117989
Application No.: 09/936,148 Group Art Unit: 1745
Filed: September 7, 2001
Title: ELECTROLYTE MEMBRANE FOR FUEL CELL AND
MANUFACTURING METHOD THEREOF, AND FUEL CELL AND
MANUFACTURING METHOD THEREOF

PRELIMINARY AMENDMENT

Seattle, Washington 98101

November 27, 2001

RECEIVED
JAN 18 2002
TC 1700

TO THE COMMISSIONER FOR PATENTS:

Please amend the above-cited patent application according to the following:

In the Claims:

Please cancel Claims 1-13, and add the following new claims:

14. (New) An electrolyte membrane comprises a porous substrate that does not swell substantially with organic solvents or water;

wherein at least a pore of the porous substrate is filled with a graft polymer;

wherein the graft polymer has proton conductivity and is derived from monomers having an ion-exchange group; and

one end of a molecule of the graft polymer is bound to a surface of the pore.

15. (New) The electrolyte membrane according to Claim 14, wherein the porous substrate is comprised of an inorganic material and/or a polymer.

16. (New) The electrolyte membrane according to Claim 15, wherein the inorganic material is one selected from the group consisting of ceramics and glass.

17. (New) The electrolyte membrane according to Claim 15, wherein the inorganic material is one selected from the group consisting of glass, alumina, silica, titania and zirconia.

01/16/2002 MWOLDER1 00000150 09936148

01 FC:202
02 FC:203

126.00 OP
216.00 OP

NAI117989AM.DOC

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{LLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100